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(505) 474-0890

## Salted Paper Printing Instructions

### Your kit contains:

- 100 ml Salted Paper Sensitizer
- 100 ml 12% Silver Nitrate Solution
- 250 g Sodium Thiosulfate Fixer
- 25ml 2% Potassium Dichromate Solution

Thank you for purchasing this Salted Paper Printing kit by Bostick & Sullivan. It will make approximately fifty 8"x10" prints and produces a unique eggplant (aubergine) colored image. The image is traditionally toned in platinum, palladium or gold for added archival quality.

Please read and understand these instructions completely before beginning, and make sure to observe standard laboratory safety precautions when handling chemicals.

### 1. Safety and Handling Information

The silver nitrate in your kit is not light sensitive as long as it is kept separate and can be handled under most room lighting conditions. A safelight is *not necessary* and normal incandescent lighting may be used during the paper coating process of making a Salted Paper print. Work in a windowless room, or shade any windows in your workspace.

Always wear plastic or latex rubber gloves while handling Salted Paper and Silver Nitrate solutions, and while coating the paper and processing the exposed images. We always recommend the use of protective goggles, glasses or other eye wear while working with photographic solutions. All photo solutions should be considered poisonous. Do not store them in a refrigerator used to store food or drinks. The solutions are stable at room temperature and will have a shelf life of at least 5 years from the date of purchase.

**SILVER NITRATE WILL STAIN ALL SURFACES BLACK INCLUDING YOUR SKIN!**

### 2) Preparing Your Workspace and Negative

You will need a negative the same size as your final image, and it must be printed in direct contact with the coated paper and exposed under intense UV light. A 1000 watt metal halide bulb, ultraviolet fluorescent lights or sunlight can be used to expose the image.

You will need a split-back contact printing frame, vacuum frame or two sheets of plate glass to maintain proper registration and pressure between the negative and paper. For the purposes of these instructions, it is assumed the artist is using a split-back contact printing frame, which allows for inspection of the image during exposure.

Select a large table with a hard, smooth surface to coat your paper. The 12% Silver Nitrate Solution will stain wood, metal and many plastic surfaces. Place several sheets of newspaper or blotter paper on top of the table to catch any extra solution.

If you are coating with a brush you should only use it for Salted Paper printing. Avoid using a brush that has been used to coat other alternative process chemistry to limit contamination. A glass coating rod can be used for multiple handcrafted processes if you wash it properly between uses.

You will need 2 trays for processing the exposed image. Fill the first tray with slowly running tap water for your first and last wash. In the second tray prepare a fixer bath by measuring 50 grams (approximately 4 heaping teaspoons) of Sodium Thiosulfate crystals per liter of cold tap water.

Select a 100% cotton rag, unbuffered, archival quality paper to print on. We recommend using hot pressed papers with a minimum 50lb rating for larger images. Heavier papers will withstand wet processing better, and the hot pressed surface will produce a denser, sharper image with smoother transitions. Begin your printing with a paper that has a proven record and has been recommended for alternative processes, then experiment with other papers as you gain experience.

### **3. Coating and Drying**

Take a piece of paper and tape the upper corners to your coating table using paper tape or masking tape. Place your negative on the uncoated paper and mark the four corners of the negative on the paper using a pencil. This will mark the area that needs to be coated and help you concentrate the solution inside the image area.

Shake both solutions well, then using the supplied droppers, count out equal amounts of both the Salted Paper Sensitizer and 12% Silver Nitrate solution into two separate small glass or plastic cups. Shot glasses as well as small plastic cups commonly used for condiments in restaurants both work well.

Approximate drops of each solution needed for various image sizes. Some papers will require more, some less:

4"x5" image = 12

5"x7" image = 18

6"x9" image = 24

8"x10" image = 40

#### **3a. Using a brush**

Wet your brush with distilled water, and then generously blot it on a paper towel to remove any excess water. This prepares the brush for coating and helps prevent the solutions from "wicking" up the bristles and keeps it on the surface of the paper.

Take the measured Salted Paper Printing solution and quickly pour the entire amount onto the center of your image area. Using very light pressure, immediately begin spreading the solution back and forth in a horizontal pattern until you have covered the image area. Switch to a vertical stroke and continue spreading the solution. Switch back and forth between vertical and horizontal strokes until the solution

has absorbed into the paper. If you are still spreading solution after 30 seconds, reduce the amount of coating solution by 1/4. If you have trouble seeing the coating solution as you spread it on the paper, place a small desk lamp or light next to your coating station and aim it horizontally over your paper.

Using the pencil marks you made earlier as a guide, make sure you coat an area large enough to completely cover your negative. Your edges are never going to be perfect, so coat a little larger than necessary, then position the negative in the middle when you are ready to expose.. After you have finished coating the paper with the Salted Paper Sensitizer, let it sit until completely dry. After the wet paper has set for 2-3 minutes you can use a hair dryer set to LOW to help dry the solution more quickly.

Wash your brush thoroughly using warm water, then rinse it with distilled or deionized water before coating with the 12% Silver Nitrate Solution.

After the paper has completely dried, apply the 12% Silver Nitrate Solution over the 1st coating of Salted Paper Sensitizer. Allow the paper to air dry or use a warm hair dryer to speed drying, in a dark room, the coated paper is now photosensitive. Then proceed to step 4.

### **3b. Using a coating rod**

Take the measured Salted Paper Sensitizer and pour the entire amount along one edge of your paper, just outside of the image area. Place the coating rod in the middle of the solution and wiggle it a few degrees clockwise and counterclockwise. The capillary action will draw the solution evenly along the entire length of the coating rod.

While applying very light pressure, gently pull the coating rod across the image area. When you reach the edge of the image area, lift the rod, skip over the bead of solution, then drag the solution across the paper in the opposite direction. If you are able to make more than 6 passes back and forth, reduce the amount of coating solution by 1/4.

If a line of solution remains on the paper after 10 passes, gently blot the excess solution with the corner of a paper towel to remove it. Let the paper dry completely, or use a warm hair dryer on LOW after the solution has set for 2-3 minutes.

Wash the coating rod and dry it completely.

Apply the 12% Silver Nitrate solution over the coat of Salted Paper Sensitizer. Allow the paper to air dry or use a warm hair dryer to speed drying. Proceed to step 4.

### **4. Exposure**

The Salted Paper image darkens and develops as it is exposed, producing a "printing out" image, eliminating the need for a separate development stage. Using a traditional split-back contact printing frame allows the artist to inspect the image during exposure without disturbing the registration between the negative and paper. This is especially useful when using natural sunlight which is variable and unpredictable, and exposure times can vary greatly.

Place your negative inside the print frame and center it on the glass. Make sure the image is not reversed when viewed through the glass, or your final image will be reversed. Carefully place your dried Salted Paper face down in the frame, covering the negative. Install the felt-lined hinged back and lock the springs in place. Do this step in the darkened room.

Place the frame under your UV light source or in direct sunlight to begin exposing. You will see the emulsion-coated area outside of the negative begin to darken almost immediately. Judging the proper time to remove the print from the light is the most important part of the entire Salted Paper process.

After approximately 3 minutes of exposing, remove the print from the light and inspect. If using the sun for exposure we recommend inspecting indoors to minimize UV exposure and fogging. Carefully open one leaf spring on the hinged back. Fold that half of the frame open to expose the backside of the print. Gently lift the paper by an edge and fold it back to reveal the image.

Salted Paper prints will darken considerably during washing, fixing, optional toning bath and drying stages, so you will need to stop exposure when it appears approximately 1/2 – 2/3 as dark as the desired final image.

After an initial 3 minutes, the image will have darkened considerably, but it is likely that it will need more exposure. Close the frame and lock the leaf spring into place, then place the frame under your light source again. Repeat the inspection process every few minutes until the image has darkened sufficiently to begin showing details in the highlights.

If your images appear flat and lack sufficient contrast, try adding 1 drop of 2% Potassium Dichromate to the coating solution of Salted Paper Sensitizer before applying it to the paper.

### **5. Washing**

Take the exposed image from the print frame and place it in the tray of wash water. Agitate the tray every 20-30 seconds. You will see the unexposed Silver Nitrate and Salted Paper Sensitizer floating off of the print as a white, milky cloud. Wash the print for 5-7 minutes, or longer if the white precipitate continues to float off the paper. Using warm water (90 degrees F) in the wash will shorten wash times considerably.

### **6. Fixing**

Remove your print from the wash tray and transfer it to the second tray with the fixer solution. Agitate the tray periodically, and watch as the image darkens. Continue agitation for 4-5 minutes. Remove the image from the fixer, and it should be approximately 3/4 as dark as your final desired image. In the final drying stage the image will darken and the color will richen even further.

Over-fixing can lead to bleaching of the image, while under fixing will cause archival permanence issues.

### **7. Final Wash and Drying**

Move the print from the fixer tray to the wash tray. Set the water flow so a slow, constant stream of water is running. Wash the print for 20-30 minutes, agitating the tray once every 5 minutes.

After washing for 20-30 minutes, gently lift the print from the tray by a corner and allow the water to drain off of the paper for 15 seconds. Hang the print from a clothes line or place on a plastic window screen to air dry. Alternatively, you can dry the print on several paper towels laid on a table, making sure to keep the print from sticking to the towels as it dries. We recommend flattening your dried prints in a warm dry mount press, then mounting and matting them on archival, acid-free board.

If the print is to be toned in gold or platinum, you can proceed directly to the toning process after the final wash without drying.